



Is it a bird? Is it a plane? No its... oh wait it's a plane. (Photo Marcus)

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Thought For The Month

"Whoever has not ascended mountains knows little of the beauties of Nature." William Howitt

In Next Month's Uni Gliding

All the goss, glory and LPG fuelled madness that is the AUGC Flinders Ridge Safari.

Now
slimmed
down to
4MB!

Visit us at <http://www.augc.on.net>

BONUS: Airfield
Information Sheet
on the back page!



Howdy,

This month newly elected President Redmond shows that despite being an engineer he can write a number of good sentences about how to stress test glider wings and provides the photos to prove it. It just goes to show what a collection of sandbags, scaffolding and two glider wings can be through and live to tell the tale.

Recently (last weekend as I write this) I attended the Thomas send-off and Annual Caravan Burning ritual. It was a great day on field with heaps of folks turning out and helping to make a very smooth operation (we had 6 AEF flights plus 3 trainees). Derek was able to cook up a superb 3

course banquet (with assistance in the form of cake from Georgia and damper from Cathy & Redmond). The evening culminated in the conversion of the old caravan/pie-cart to heat and ashes, Many marshmallows were roasted to celebrate and Cathy brought out her 2 year old German Beer.

Next month we will have a Uni Gliding Exclusive - all the news from the Flinders Camp - what flew, what didn't, who made an ass of themselves at the campfire... Can't wait.

Until next month...

Mr. Ed.



Georgia demonstrates her patented stoking-the-fire-by-hitting-it-repetitively-with-a-big-stick technique. (Photo D. Medlow)

Uni Gliding

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From the Prez...

Redmond Quinn

We have seen good progress in the club over the last couple of months. Two aircraft annual inspections have been completed (Club Libelle and PIK) and badly needed mods to the PIK trailer have been largely completed. I would like to thank all people who have contributed to this effort. In particular I would like to thank Derek Spencer for the trailer work and Thomas Kaufmann for seeing the polishing of the PIK to completion. Another special mention must go to the crew which turned up and drove the completion of the Club Libelle inspection to completion in one day.

As you read this Thomas Kaufmann will be winging his way home to Zurich after flying with us for the last 4 months. I would like to thank Thomas for all the effort he has put into our club over this short period.

We couldn't let Thomas go home without a suitable sendoff. The BBQ and bonfire on Saturday 30th May was a great event drawing club members together for a great day's flying. The

bonfire was lit with suitable pomp, ceremony and explosion and saw the final demise of the old Stonefield piecart!

In the latter half of June we will organize a "big boy's (and girl's) toys" weekend to progress the new hangar. On this occasion we will hire in bobcat, rotary hoe and compactor to finish cleaning up the site and to lay and compact the flooring material. Once that is completed we will be finally ready to erect the hangar.

Finally I would like to ask everybody in the club to welcome and help new members and guests coming onto the airfield so they feel safe and welcome.

Fly often, fly safe.

Redmond

Caption Competition Results

Since NOONE had contributed any entries to the wombat photo caption competition I hereby declare the winner to be me.

In case you feel remorseful about not sharing your wit and humour with the rest of the world, here are two more photos, taken during the AUGC ski-a-thon on the River Murray. Feel free to consider captioning them - I don't care.

Mr. Ed.



Chief Flying Instructor's Comments

Dennis Medlow

Situational Awareness

Last month I wrote about managing your energy in order to land back on earth in a place of your choosing. This month I am discussing how to know where you are in relation to other things. The term used is 'situational awareness' and although the literal meaning is awareness of your situation or status, it really must be extended to cover a number of things. When flying we could interpret our 'situation' as being the aircraft and the immediate surroundings. Indeed it is that but it is also much more. Let me explain.

We need to be cognicent of our situation both inside and outside the cockpit. Inside we need to understand the state of our bodies (are we dehydrated, getting tired, etc.) and how is our copilot/passenger/AEF (as appropriate in twin seater aircraft) feeling. Outside the cockpit we need to understand the state of the immediate airspace around us (where are the other aircraft, are there any eagles in this thermal) but also where we are in relation to the field, to controlled airspace or restricted areas, to other high(er) density aviation areas (like the nearby Truro Flats airfield or Stonefield NDB). We need to ensure we are conscious of the state of the weather and the

environment (is that rain shower moving closer, when should I decend in order to land before last light).

Understanding our situation is not just relevant to the pilot when flying. Everyone on field needs to maintain a level of situational awareness. For example a person launching an aircraft should be conscious of all the aircraft in the circuit, of any aircraft within the launch area, of changes to wind or approaching thermals and be prepared to advise the pilot of such things.

We also need to maintain our situational awareness not only for the current situation we are in, but also for the situation we will be in 10, 30, 60 seconds from now. We need to understand what needs to be done now in order to avoid problems developing in the future (i.e. am I getting too far from the field on a local soaring flight - time to turn in and head back). The GFA scanning technique helps us to gain the situational awareness of the airspace around us, but we need to be monitoring a lot more than that.

AUGC CFI



Pukatek on approach (Photo D. Medlow)



SAGA Coaching Sessions

Coaching activities for 2009/2010 have been announced. Each night will feature two topics from a variety of experienced speakers. All pilots are encouraged to attend these sessions.

Wednesday 17 June	Oxygen Systems / Overcoming Motion Sickness
Thursday 16 July	RASP, Blipmap, NOAA / Southerly Airstreams & their influence on thermals
Tuesday 11 August	Parachute Handling & Care / Wave Flying in South America
Wednesday 16 September	Flight Analysis / Outlanding & outlanding techniques
Thursday 15 October	Thermal Sources & Triggers / New Sporting code.

All sessions will be held in the Adelaide University Engineering North building, room N123 on the First Floor (Chemical Engineering) and start at 19:30 (7:30pm).



A new generation of pilots get inducted into the Redmond Hall-Of-Flame(s) (Photo M. Newton)



News You Can Use

New Glider Training Scheme

GFA has announced that from Q4 2009 a new glider pilot qualification will be introduced called the Glider Pilot Certificate (GPC). For more information see page 30 of the May 2009 edition of Australian Soaring. More information on how this will be introduced into AUGC will be published in coming months.

AUGC Flinders Camp

Once again AUGC will spend the June long weekend at Rawnsley Park for a weekend of wave, ridge and thermalling fun.

Requests for cabins at Rawnsley Park Station are now closed.

A link is available on the AUGC Website which

provides details of the Flinders Camp operational notes and cabin accommodation.

Fleet Notes

Please note that TX has been taken off line. WVA and MI are only insured for ground risks. ZM has been sold to a Club syndicate.

Coming Events

The Social Convenor (Derek) is planning a bowling night.

Webmaster & Contact Person

Guy Harley has agreed to continue in the webmaster role for www.augc.on.net and continue as contact person. Thanks Guy!



Airfield Departure Checklist

Things to do before leaving the airfield...

If you are the last person to leave the airfield **please, please, please** ensure that you have completed the following checklist:

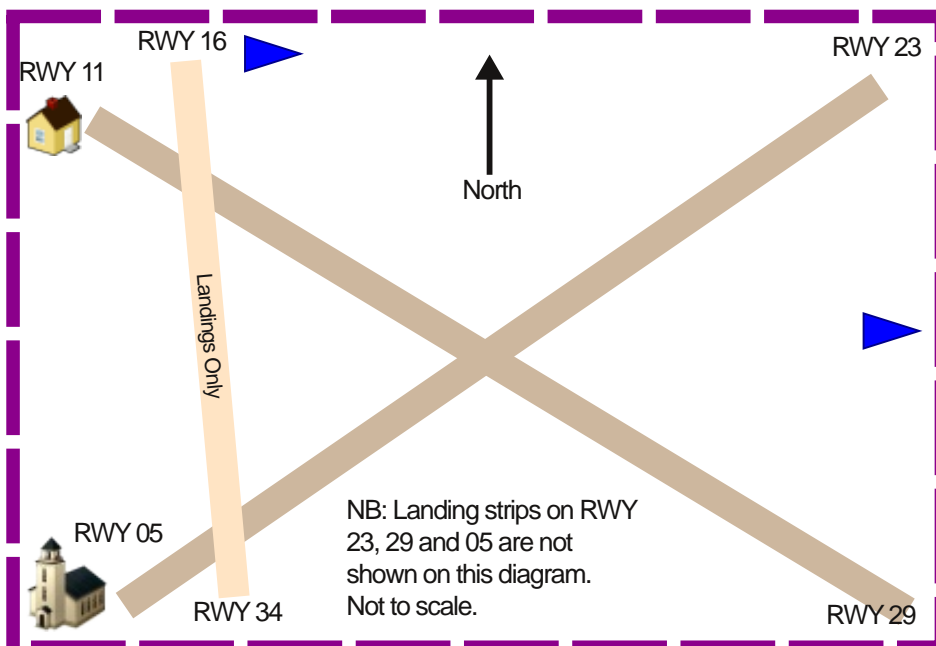
1. Winch battery isolated.
2. All hanger lights are out.
3. All hangers locked.
4. Fuel Bunker locked.
5. Hot Water Heater turned off in meter box.
6. Bunkhouse lights out and bunkhouse locked.
7. Garbage bag collected for disposal.
8. Clubhouse lights out, appliances off.
9. CB radio batteries on charge.
10. All keys returned to key board in Clubhouse
11. Clubhouse locked.
12. Clubhouse key returned to meter box.
13. Water turned off at mains meter.
14. Gate closed and locked.

Please do these checks even if there are people due up at the airfield on the following day, that way we leave the field secure in case the following day's flying does not happen.

AVIATION and DRUGS DO NOT MIX



Runway Quick Reference Guide



Cut out and keep this diagram handy to prevent on-field embarrasments.



Aircraft Maintenance Program

Please lend a hand with the following tasks...

Pik 20 (WVA)

Form 2 complete but SOMEONE has ripped the undercart door screws off requiring an urgent repair prior to the Flinders. You must be careful with the dolly when using it to move aircraft in and out of the hanger.

Pukatek (KRO)

Form 2 due 26th September 2009. The main wheel oleo may need recharging after the Flinders.

Club Libelle (GMI)

Form 2 inspection complete and ready for the Flinders Camp.

Arrow (GNF)

Repair work will continue at West Beach once WVA and FQW prop work is out of the way.

There are a number of woodwork repairs to complete - an excellent opportunity to gain skills in wood repair techniques.

MotorFalke (FQW)

Propellor to be removed and sent back for repair with Agent.

Form 2 due 6 Dec 2009.

Standard Libelle (GTX)

Currently off-line and not operational.



Airfield Maintenance Program

Runway / Taxiway Marking

We will be gradually marking the runway strips with the sidewalls of tyres. To make these stand out against the ground we paint them white (or whiteish). Using just the sidewalls for this purpose means we get 2 runway markers from each tyre and they do not protrude above the ground as much as a whole tyre - and therefore should not damage aircraft that run over them.

Assistance is needed in (1) cutting the side walls out and (2) painting the INSIDE of the tyre with white paint. We paint the inside because we place the sidewall on the ground with the outside part of the tyre facing downwards.

New Hanger Construction

The following immediate jobs need completion:

- * **Stripping of formwork (wood is not to be burnt but must return to Adelaide - see CFI)**
- * **Cleanup of the southwestern quarter of the floor area**

When these 2 activities are complete we will order in the quarry rubble for the floor. This will be dumped on the cleaned out area. Once we have the quarry rubble delivered we will organize a weekend when we will hire some big boys toys and carry out the following jobs:

- * Cut back the bank at the rear of the hangar and

place the material at the front to improve the slope.

- * Clean out the other $\frac{3}{4}$ of the floor area and dump the material out the front
- * Compact the material on the front slope
- * Spread the quarry rubble over the hangar and front slope
- * Level and compact the quarry rubble

Once the floor is sorted we will be ready to build the hangar!

Winch

3 new traces have been made up.

The back motor on the winch has had the timing adjusted so that the flat spot at around 1500 rpm isn't so noticeable. This resulted in some launches which were a bit over exuberant on the 'all out' as far less throttle is needed to get through the flat spot now.

Winch drivers please note this and adjust your launch technique or we will have a rash of weak link / cable breaks at 'all out'.

The timing adjustment is somewhat crude having been done with one eye on the tacho and one ear listening to the change in revs. If anyone has a timing light and some better experience at adjusting the timing, their help would be greatly appreciated.



Flying Calendar



*There's nothing like a throwing an old caravan on the fire to warm you up on these cold winter nights.
(Photo: Mark Newton)*

June

The days can only get longer from here!

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1 Help @ West Beach	Flinders Meeting 6:30pm AU Sports Assn office	3	4	5	6 FLINDERS CAMP	7 FLINDERS CAMP
8 FLINDERS CAMP	9 FLINDERS CAMP	10 FLINDERS CAMP	11	12	13 GO FLYING	14 GO FLYING
15 Help @ West Beach	16 Help @ West Beach	17	18	19	20 GO FLYING	21 GO FLYING
22 Help @ West Beach	23 Help @ West Beach	24	25	26	27 GO FLYING	28 GO FLYING
29 Help @ West Beach	30 Help @ West Beach					



Loading to the Limit

Redmond Quinn

Ever thought about the structure of your wing as it bends entering a loop?

Hopefully the designer of the aircraft has, but how do we know they got it right?

If in doubt the simple answer is test it out.

Unfortunately testing in flight is difficult to achieve and has a bad outcome if the structure fails. Hence we test our wings on the ground.

The JAR22 design standard for utility gliders requires them to be able to handle a 5.3G positive load in flight. i.e. the wings have to be able to support 5.3 x maximum "weight of non flying parts". The non flying parts are the fuselage plus tailplane including payload and any fuel carried in the fuse. The maximum value is declared in the aircraft certification paperwork.



For large manufacturers proof loading on the ground is carried out by applying simulated loads to the wings using calibrated hydraulic rams in a sophisticated test rig. For simple GA and glider types, gravity and sand bags achieve the same outcome. The 2 halves of the wing are rigged together, inverted on a centre mounting structure.

Carefully weighed bags of sand are then precisely placed on the undersurface of the wing to produce the 5.3G load. The bags are placed so the load is spread evenly over the wing surface area. A glider wing will deflect substantially by the time 5.3 G load is achieved.

A long time member of our club, Gary Hollands, now living in Canberra has been assembling a kit sailplane over recent years. The US manufactured Falcon sailplane kit has had some problems in quality of original kit parts and there had been a couple of root rib failures during testing of kits

assembled in the US. Gary was aware of these failures and strengthened the offending components during assembly of his kit. Due to some of the quality issues he had encountered with the kit he considered it appropriate to test load the wing structure.

The test date was set for 4th April. Gary spent a couple of months beforehand preparing for the test. Preparations included building the centre mount structure in the back garden and manufacturing the wing mounting fitting. He also precisely filled, weighed and labeled a couple of tones of sandbags. A bunch of interested gliding airworthiness people, partners, kids and dogs turned up in Canberra for the event (and for the after party).

First challenge is how to get a rigged wing inverted and bolted to the top of a 2½ m high structure. Gary had anticipated this and organized the necessary supports, beam and chain block.



Following a quick structural assessment it was decided to add some extra cross bracing to the mounting structure. Having the structure collapse half way through the test would have been a bit of a show stopper!

The other issue that needs to be dealt with is the deflection as the wings are loaded. At some point of loading all the sandbags will slide off the wing.

This problem was dealt with by a couple of industrial rolls of Gladwrap. As the sand bags were placed they were wrapped to hold them in place.

Loading to the Limit (Cont.)



Once the Job Hazard Analysis and workparty briefing were complete loading commenced. Port and Starboard teams worked in unison so that loading was applied symmetrically. Every now and then we stopped loading to wrap, measure, photograph and admire the handiwork. As loading proceeded the collection of bags on the ground diminished and the wing tips got lower and lower.



Just a few bags short of 5.3G load an ominous creaking sound came from the root rib area.

Jumping to conclusion, we assumed the modification was insufficient. Concluding the wing was a write off we loaded on the last few bags anyway. The expected catastrophic collapse didn't occur.

Following removal of the sandbags the wing did not fully recover to its original position confirming that something was amiss. We couldn't see any evidence of root rib failure, however the end of each spar stub had displaced slightly in relation to the opposite wing.

The wing was lowered from the test stand and



derigged. It then was plain for all to see. The steel pins in the ends of the spar stubs had failed rather than the composite structure. Each was substantially bent.

Fortunately with the way a Falcon spar stub is assembled it will be a relatively easy job to remove the offending pins and replace them with more robust units.



Following a suitable post mortem the party ran well into the night. Gary was left with 2 tonnes of sandbags lying around the garden and 2 bent pins.

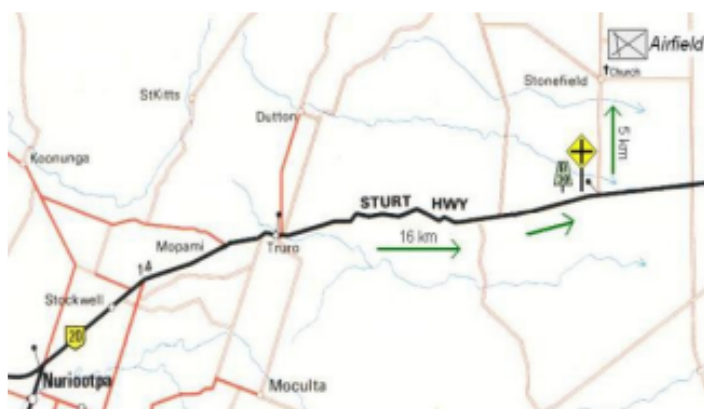
Stay In Touch

The Club has an email group address, augc-people@lists.internode.on.net, that is used to either discuss or arrange things within the club. If you want to stay in touch with the club, subscribe to the mailing list by filling out the online form at: <http://lists.internode.on.net/mailman/listinfo/augc-people>.

You can still send an email to the list even if you have not subscribed to it. There is also an 'augc-announce' list for official club announcements, courtesy of our friends at Internode. If you are an AUGC member and have provided your email address then you will already be on this list. If you want to join this list or want to change your subscription, go to: <http://lists.internode.on.net/mailman/listinfo/augc-announce>.

You can also get the latest newsletter and up to date news on what is going on at the Club's web page: <http://www.augc.on.net>. If your email address is on the membership database the Club's Assistant Treasurer can send you your account updates over the internet. Send an email to: accounts@augc.on.net.

Fly This Weekend!



Want to go flying on the weekend? You must ring the club contact person on the **Thursday before between 8.00pm and 10:00pm on 0412 870 963**, (or send an email: contact@augc.on.net) so that he can organise instructors and transport for those intending to fly. Members can book via the online booking system at: <http://booking.augc.on.net>.

You can either drive up yourself by following the map at left, or the contact person can arrange a lift to Stonefield either from the Adelaide University footbridge (meet at 7.15am to leave at 7:30am), or from the Caltex Service station on the corner of Montague Road and Main North Road (meet at 7.45am to leave at 8:00 am).

Help at West Beach!

West Beach is where we carry out the maintenance and repair on our gliders and equipment. There are usually people working down there on Monday and Tuesday evenings most weeks. The entrance is at the end of Foreman St, West Beach.

So you want to help fix the aircraft at West Beach, but can't get there? A lift can be arranged from the Adelaide University footbridge at 7.30pm via augc-people@lists.internode.on.net.



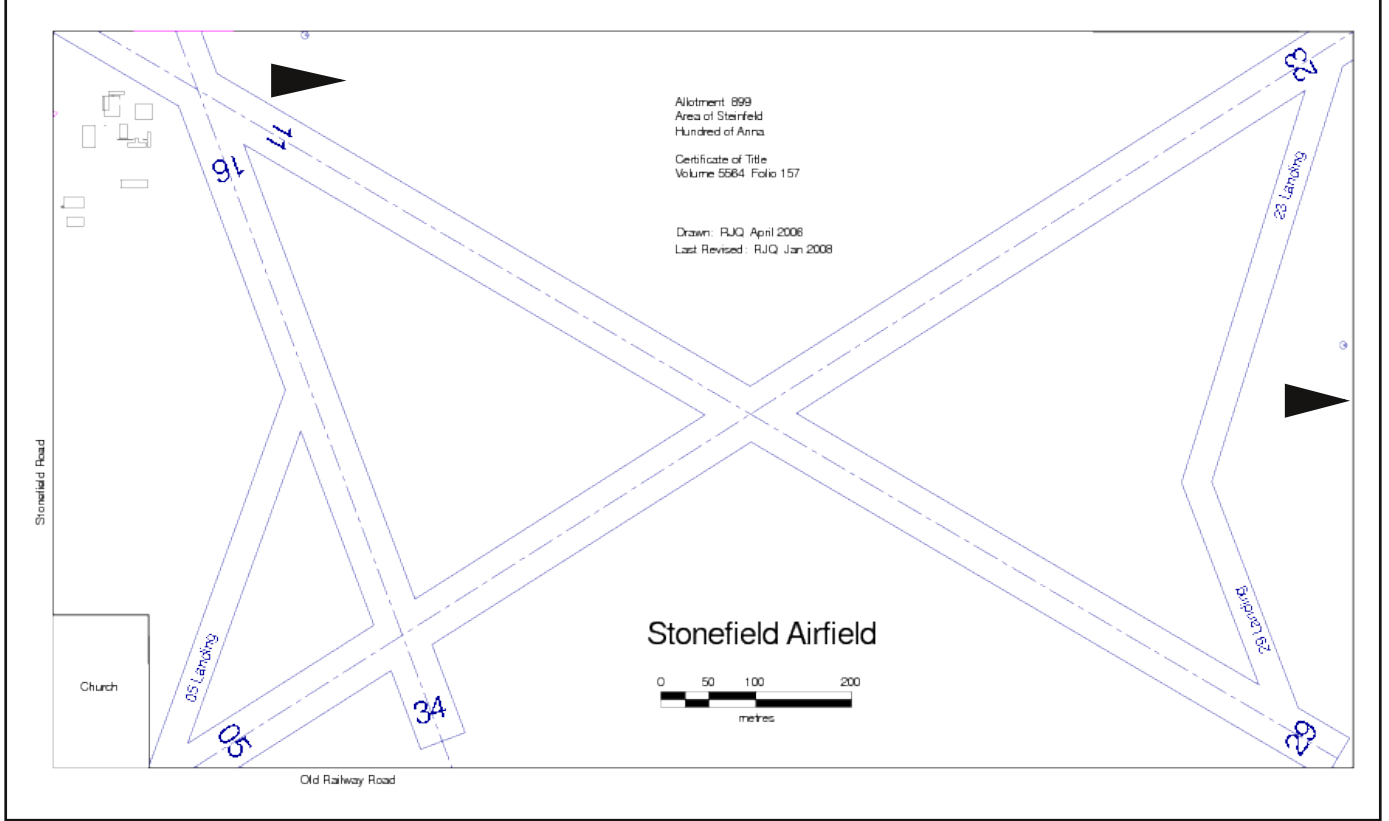
Club Contacts

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Secretary:	Anne Philcox	0409 202 250	secretary@augc.on.net
Social Convener:	Derek Spencer	0429 028 065	social@augc.on.net
Exec Member:	Kolin Rajapaksha	TBA	fifth-member@augc.on.net
Chief Flying Instructor:	Dennis Medlow	0407 833 565	cfi@augc.on.net
Airworthiness Officer:	Redmond Quinn	08 8344 5331	airworthiness@augc.on.net
Contact Person:	Guy Harley	0412 870 963	contact@augc.on.net
Newsletter Editor:	Dennis Medlow	0407 833 565	editor@augc.on.net

1 MAY 2009 AD ELEV 330 AERODROME CHART
 S34 20 20 E139 18 10 **STONEFIELD GLIDING**
 UTC + 9:30 (SFD334/004) PVT

AD OPR Stonefield Aviation Association (SAA). PH 0412 870 963.

CTAF 126.7	HAZARD Winch Launches to 2500 AAL Wildlife on Airfield	VAR 8.5 DEG E	Bearings are Magnetic Elevations in FEET AMSL
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REMARKS

PPR. Private ACFT by prior arrangement via AD OPR or CFI AUGC/BVGC (cfi@augc.on.net).

HANDLING SERVICES AND FACILITIES

Nil

PERSONNEL FACILITIES

WC, LG, AC

PHYSICAL CHARACTERISTICS

- 05/23 047 c Unrated - natural SFC WID 50
- 11/29 049 c Unrated - natural SFC WID 50
- 16/34 026 c Unrated - natural SFC WID 50

HAZARDS

Trees at end RWY 11, 29 and 05. Church & trees on approach RWY 05.
 Fence across approach to all RWY.

WINCH LAUNCHING conducted - cable may extend to 2,500 FT AAL.
 Numerous stones on AD SFC, conduct run ups with caution.
 Wildlife (Kangaroos, Emus, Wombats etc.) may be present on airfield.

ATS COMMUNICATIONS FACILITIES

FIA MELBOURNE CENTRE 125.3

CTAF 126.7

ADDITIONAL INFORMATION

Gliding OPS HJ. Gliders broadcast intentions on 126.7 to 'STONEFIELD GLIDING'.

CHARTS RELATED TO THE AERODROME

WAC 3458 VNC ADELAIDE VTC ADELAIDE